

90. (New) The field emission device of claim 88, wherein said conductivity-increasing dopant comprises boron or phosphorous.

91. (New) The field emission device of claim 88, wherein said conductivity-decreasing dopant comprises nitrogen or carbon.

92. (New) The field emission device of claim 88, wherein said amorphous silicon-based film is deposited on a substrate.

93. (New) The field emission device of claim 88, wherein said amorphous silicon-based film has a tensile stress of between about 10^8 and about 10^9 dyne/cm².

94. (New) The field emission device of claim 88, wherein said amorphous silicon-based film has a resistivity between about 10^5 ohm-cm and about 10^6 ohm-cm.

95. (New) An electronic device having an amorphous silicon-based film having a resistivity between about 10^3 ohm-cm and about 10^7 ohm-cm, wherein said amorphous silicon-based film includes a conductivity-increasing dopant and a conductivity-decreasing dopant.

96. (New) The electronic device of claim 95, wherein said conductivity-increasing dopant is an n-type dopant or a p-type dopant.

97. (New) The electronic device of claim 95, wherein said conductivity-increasing dopant comprises boron or phosphorous.

98. (New) The electronic device of claim 95, wherein said conductivity-decreasing dopant comprises nitrogen or carbon.

99. (New) The electronic device of claim 95, wherein said amorphous silicon-based film is deposited on a substrate.

100. (New) The electronic device of claim 95, wherein said amorphous silicon-based film has a tensile stress of between about 10^8 and about 10^9 dyne/cm².

101. (New) The electronic device of claim 95, wherein said amorphous silicon-based film has a resistivity between about 10^5 ohm-cm and about 10^6 ohm-cm.

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102. (New) A flat panel display device having an amorphous silicon-based film having a resistivity between about 10^3 ohm-cm and about 10^7 ohm-cm, wherein said amorphous silicon-based film includes a conductivity-increasing dopant and a conductivity-decreasing dopant.

103. (New) The flat panel display device of claim 102, wherein said conductivity-increasing dopant is an n-type dopant or a p-type dopant.

104. (New) The flat panel display device of claim 102, wherein said conductivity-increasing dopant comprises boron or phosphorous.

105. (New) The flat panel display device of claim 102, wherein said conductivity-decreasing dopant comprises nitrogen or carbon.

106. (New) The flat panel display device of claim 102, wherein said amorphous silicon-based film is deposited on a substrate.

107. (New) The electronic device of claim 102, wherein said amorphous silicon-based film has a tensile stress of between about 10^8 and about 10^9 dyne/cm².

108. (New) The electronic device of claim 102, wherein said amorphous silicon-based film has a resistivity between about 10^5 ohm-cm and about 10^6 ohm-cm.